DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012879 Address: 333 Burma Road **Date Inspected:** 02-Apr-2010

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Tower Components

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

Bay 11

This QA Inspector randomly observed no apparent welding related work being performed in Bay 11.

Bay 10

This QA Inspector randomly observed the following work in progress in Bay 10:

SMAW welding of weld joint NSTL-3K/L-31 located inside PCMK north tower, lift 4, skins A/E corner, bottom of 143M double diaphragm to closure plate. Welder was identified as 500373. QC was identified as ZPMC CWI Tu Jun (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Li Peng Fei, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3213-B-U2a-1. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Nan.

SMAW welding of weld joint NSTL-3F/L-100 located inside PCMK north tower, lift 4, skins A/E corner, top of 123M double diaphragm to closure plate. Welder was identified as 052930. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3213-B-U2a-1. Also present at this location and appearing to be monitoring the welding related

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operations were ABF Representatives Li Nan and Hu Gui Hua.

SMAW welding of weld joint NSTL-3C/L-40 located inside PCMK north tower, lift 4, skins A/E corner, bottom of 119M double diaphragm to closure plate. Welder was identified as 050289. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-3212-B-U2a-2. Also present at this location and appearing to be monitoring the welding related operations were ABF Representatives Li Nan and Hu Gui Hua.

FCAW welding of weld joint NSTL4-3F/L-31 located outside PCMK north tower, lift 4, skin E to closure plate at skins A/E corner. Welder was identified as 053870. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Jiang Xiao Bo, who was not a CWI. The welding variables recorded by QC1's assistant appeared to comply with WPS-B-T-4333-TC-P4-F.

Heavy Dock

This QA Inspector randomly observed the following work in progress on the Heavy Dock:

FCAW welding of weld joint NSD1-SA76F/H-5 located inside PCMK north tower, lift 1 base, skin E, shear plate stiffener to connection plate. Welder was identified as 067877. ZPMC QC was identified as CWI Gong Liangzhu (QC2). The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint NSD1-SA76D/F-5 located inside PCMK north tower, lift 1 base, skin A, shear plate stiffener to connection plate. Welder was identified as 068916. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F. Also present at this location and appearing to be monitoring the welding related operations was ABF Representative Li Xiu Hua.

FCAW welding of weld joint NSD1-SA11-15 located outside PCMK north tower, lift 1 base, skin C, shear plate stiffener to connection plate. Welder was identified as 040349. ZPMC QC was identified as QC2. The welding variables recorded by QC2 appeared to comply with WPS-B-T-2333-TC-P4-F.

SMAW welding of temporary bracing for jacking equipment appearing to exert force on shear plate stiffener to connection plate located inside PCMK north tower, lift 1 base, skin C. Welder was not identified. ZPMC QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding operation was ZPMC QC Yang Mingming, who was not a CWI.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

ABF Representative Li Xiu Hua informed this QA Inspector that the only work being performed at the tower trial assembly area was at the base level at the above noted locations. The tower access elevator appeared to be shut off at the 23M level.

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Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest, 150-0042-2360, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet,George	Quality Assurance Inspector
Reviewed By:	Dawson,Paul	QA Reviewer